Idaho Division of Aeronautics—Summer, 2006

Staff Development Agenda - Emphasis upon Math and Science integrating with Social Studies, Language Arts and Technology
(Subject areas overlap)

1. Introduction
2. Aviation humor: saturn, dangerous, luggage check-in
3. Qualifications
4. Brief background information on aviation education in Chicago
5. Uses of aviation: core subjects and matching of activities with idaho state standards, framework, and isat
6. **Technolgy**: use of internet and aviation url list
7. Bridges at Toko-Ri , Island in the Sky; bring copies to conference
8. Use motion pictures to get across academic subjects and units
9. Aviation movie list—**Toko Ri** for science (hypothermia) and math (fuel pounds and gallons, flying time, orbit for vocab)
10. Construction of plotter using clear acetate and paper compass rose activity
11. Rotating plotter and use on maps **Social studies and math**: maps and compass directions map games with blank u.s. map and u.s. map with latitude and longitude
12. Math questions such as ¼ of 360; ½ of 180; increase by 45’ to get each new direction; 45 is what % of 360?-will be covered later
13. Introduction to Idaho chart: front and back
14. Use of mountain flying tips on chart for survival equipment list and story about forced landing—mention tie-in with search and rescue exercise
15. Grids and map scales, map legend reproduction and exercise (chart symbols)
16. Latitude and longitude using tic-tac-toe (rubric)
17. Finding places on Idaho chart using coordinates and places chart excerpt
18. Tie in with **close encounters** excerpt and geographic coordinates—show movie excerpt
19. Websites providing airport information and examples
20. Finding 2 fields for flight planning exercise—coe: 47’46 n, 116’ 49 w; ida: 43’30 n, 112’ 04 w--completing trip plan questions with formula chart; marking some places for checkpoints on flight log
21. Using map scales for distances in statute and nautical miles
22. Using FS Pro flight plan with technology strand
23. Using excel for maximum elevation figures graph
24. Magnetic variation with geographic and magnetic poles
25. Use of student e6-B flight computer for WCA and GS
26. Finding WCA with graph paper
27. Cross country flight plan
28. Filling out AOPA flight plan for COE to IDA
29. **Technology**: FS Pro flight plan as basis for math problems of time, speed, distance
30. **Math, social studies, reading, creative writing:** search and rescue (partially complete)
31. Search and rescue enrichment activities
32. **Science**: composition of the atmosphere with lack of oxygen at higher altitudes due to lower air pressure
33. Payne Stewart and using excel for graphing effects of hypoxia

34. **Language arts, math, art:** runway construction project
35. Newton's third law and 4 forces of flight: balloon experiment
36. Temperature lapse rates with temp at altitude and cooling of air released from balloon
37. **Math**: volume of cylinder problem in geometry—weights and measures on internet
38. Use mean and median formulas in flying paper airplanes
39. Time zones: pre-algebra and 24 time zones and longitude lines
40. **Math**: ufo pursuit problem using tab